

## REMARKS

### **I. Status of Claims Under 35 USC § 102**

Claims 1-19 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,669,116 to Agazzi et al. (hereinafter "Agazzi"). See *Examiner's Office Action* p. 2 (24 April 2003). Applicant respectfully shows below that the art of record does not establish a prima facie case of unpatentability of Claims 1-19, and therefore respectfully asks that Examiner Nguyen (hereinafter "Examiner") hold such claims allowable.

### **II. MPEP Standards for Determining Anticipation<sup>1</sup>**

An examiner bears the initial burden of factually supporting any prima facie conclusion of anticipation. *In Re Skinner*, 2 USPQ 2d 1788, 1788-89 (B.P.A.I. 1986); *MPEP* § 2107 (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992) ("The examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a prima facie case of unpatentability. . . .")). Failure of an examiner to meet his burden entitles an applicant to a patent. *Id.* ("[i]f examination at the initial stage does not produce a prima facie case of unpatentability, then without more the applicant is entitled to grant of the patent").

The MPEP indicates that in order for an examiner to establish a prima facie case of anticipation of an applicant's claim, the examiner must first interpret the claim<sup>2</sup>, and thereafter show that the cited prior art discloses the same elements, in the same arrangement, as the elements of the claim which the examiner asserts is anticipated. More specifically, the MPEP states that "[a ]claim is anticipated *only if each and every element as set forth in the claim is found*, either expressly or inherently described, in a single prior art reference. . . . The identical invention must be shown in as complete detail as is contained in the . . . claim. . . . The elements

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<sup>1</sup> Applicant is aware that Examiner is familiar with the MPEP standards. Applicant is merely setting forth the MPEP standards to serve as a framework for Applicant's arguments following. Should Examiner disagree with Applicant's characterization of the MPEP standards, applicant respectfully requests correction.

<sup>2</sup> The rules for claim interpretation with respect to an anticipation rejection are essentially the same as with respect to an obviousness rejection, and were set forth in section I(B)(1) of Applicant's previous Office Action response.

must be arranged as required by the claim . . . ."). *MPEP* § 2131. Consequently, under the guidelines of the *MPEP* set forth above, if there is *any* substantial difference between the prior art cited by an examiner and an applicant's claim which the examiner asserts is rendered unpatentable by the prior art, the prior art does NOT establish a prima facie case of anticipation and, barring other rejections, the applicant is entitled to a patent on such claim.

### **III. Art of Record Does Not Establish Prima Facie Case of Anticipation of Claims 1-6**

Applicant shows below that the art of record does not render Independent Claim 1 unpatentable. Applicant further shows below that the art of record does not render Dependent Claims 2-6 unpatentable for at least the reasons that such claims depend from Independent Claim 1.

#### **A. Independent Claim 1**

##### **1. Recitations of Independent Claim 1**

Examiner has held Applicant's Independent Claim 1 to be unpatentable in view of Agazzi. Applicant's Independent Claim 1 recites as follows:

An echo cancellation method for a digital data communication system comprising a first device having a first transmitter and a first receiver, and a second device having a second transmitter and a second receiver, wherein said first transmitter is configured to transmit signals to said second receiver over a downstream communication channel, said first receiver is configured to receive signals from said second transmitter over an upstream communication channel, and an echo channel conveys echo signals between said first transmitter and said first receiver, said method comprising the steps of:

[a] *generating an analog output signal* by said first transmitter for receipt by said second receiver;

[b] sampling said analog output signal; and

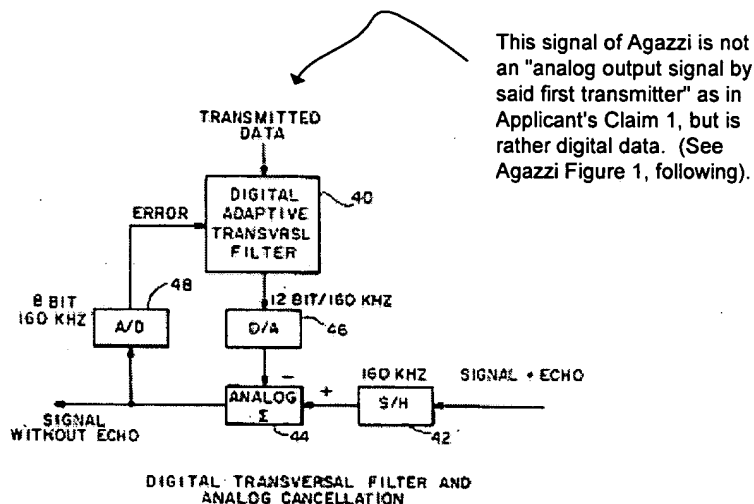
[c] performing echo cancellation based on said analog output signal, wherein said echo cancellation cancels the echo signals conveyed by said echo channel.

## 2. Art Cited By Examiner Does Not Render Claim 1 Unpatentable

Examiner has stated that Agazzi's Figure 2b, and its supporting text, teach Applicant's Independent Claim 1. *Examiner's Office Action* p. 2 (24 April 2003). Applicant disagrees.

Applicant respectfully points out that Agazzi does not render Independent Claim 1 unpatentable, and, in point of fact, that Agazzi represents one type of problem that certain aspects of Applicant's invention solves. That this is true can be seen by comparison of Agazzi's Figure 2b with Figure 3 of Applicant's disclosure.<sup>3</sup>

Agazzi's Figure 2b is as follows:



**FIG. - 2b**

Agazzi's Figure 2b is an isolation view of the echo canceller of Agazzi's Figure 1. As noted above, Agazzi's Figure 1 makes clear that the "transmitted data" of the "digital adaptive transversal filter" 40 of Agazzi does not show or suggest at least the "generating an analog output signal by said first transmitter for receipt by said second receiver; [and] sampling said analog output signal" recitation of Applicant's Claim 1:

<sup>3</sup> Applicant points out that Figure 3 is merely an example used for sake of illustration. Applicant's use of Figure 3 should not be taken as an admission that Applicant's claims are in any way limited to/by Figure 3. Applicant's claims define the invention

Agazzi's Figure 1 shows that the "transmitted data" signal of Agazzi Figure 2b is not an "analog output signal by said first transmitter", but is rather digital data. Comparison of Agazzi's Figures 1 and 2b with Applicant's Figure 3, following, highlights this difference.

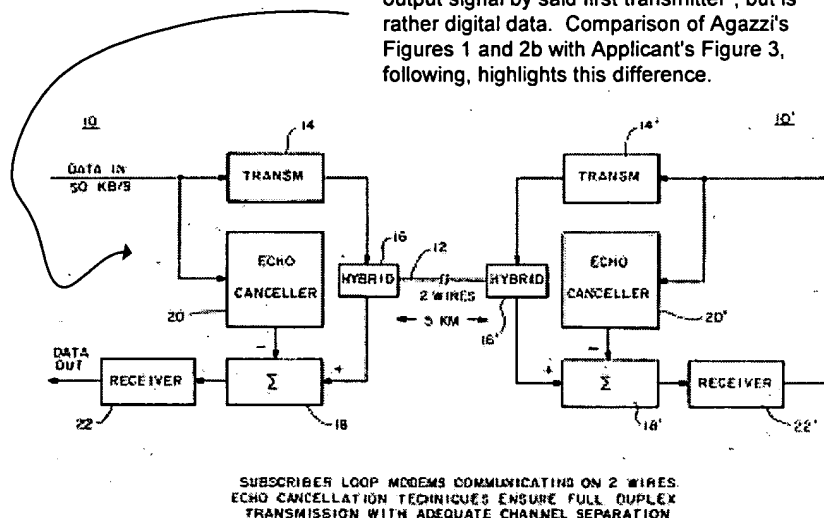


FIG. -1

As noted, comparison of Agazzi's Figure 1 with Applicant's Figure 3 highlights at least one difference of the teaching of Agazzi from Applicant's Claim 1:

As shown above, Agazzi's echo canceller uses the digital input data signal to Agazzi's transmitter 14; Applicant's Figure 3 shows echo canceller 310 using the analog output signal of Applicant's transmit circuitry 306.

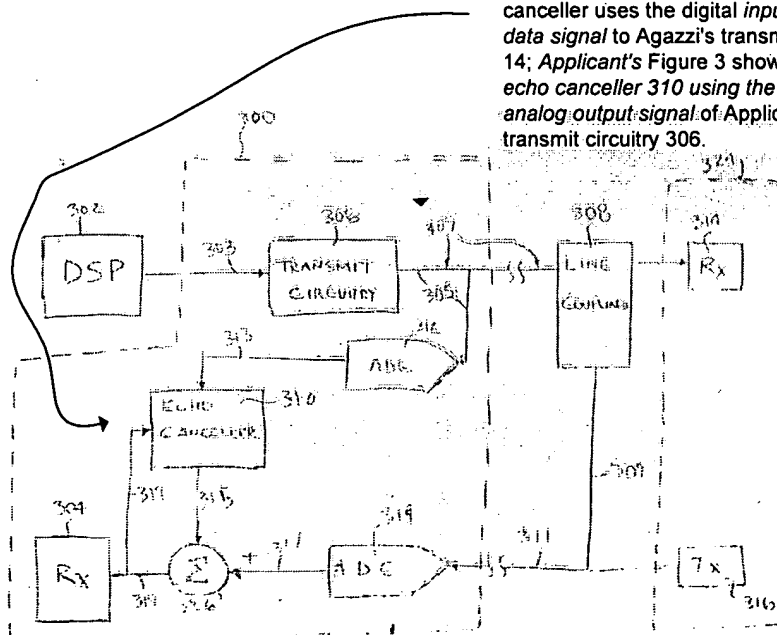


FIG. 3

In summary, Agazzi does not generate an analog output signal as called for in Claim 1. Further, there is no sampling of this analog output signal.

Lastly, as an aside, Applicant points out that, not only are the teachings of Agazzi and the recitations of Applicant's Claim 1 distinctly different, but also that Agazzi shows a system which the technical subject matter of Applicant's application improves. *See Applicant's Application, Background of the Invention*, pp. 2-5, and Applicant's Prior Art Figure 2.

As has been demonstrated, the art of record does not show the recitations of Claim 1. Accordingly, insofar as that the art of record does not show or suggest the recitations of Claim 1, in light of the MPEP standards for patentability as set forth above, Claim 1 is not rendered unpatentable by the art of record. Hence Applicant respectfully requests that Examiner hold Claim 1 allowable for at least the foregoing reasons.

#### **B. Dependent Claims 2-6**

Claims 2-6 depend either directly or indirectly from Independent Claim 1. "A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." 35 USC § 112 paragraph 4. Consequently, Dependent Claims 2-6 are not rendered unpatentable by the art of record for at least the same reasons why Independent Claim 1 is not rendered unpatentable by the art record. Accordingly, applicant respectfully requests that Examiner hold Claims 2-6 allowable for at least these reasons.

#### **IV. Art of Record Does Not Establish Prima Facie Case of Anticipation of Claims 7-10**

In his Office Action of 24 April 2003, the Examiner rejected Applicant's Claim 7 on substantially the same art and reasoning as the Examiner rejected Applicant's Claim 1. *See Examiner's Office Action* p. 2 (24 April 2003). Claims 8-10 depend from Claim 7. Accordingly, mirroring the approach taken by the Examiner in his Office Action, Applicant herein respectfully asserts that Claims 7-10 are not rendered unpatentable by the art of record for at least the reasons why Claims 1-6 are not rendered unpatentable. Consequently, Applicant respectfully requests that the Examiner withdraw his rejections of Claims 7-10 for at least the reasons why Claims 1-6 are not rendered unpatentable by the art of record, and hold Claims 7-10 allowable.

**V. Art of Record Does Not Establish Prima Facie Case of Anticipation of Claims 11-16**

In his Office Action of 24 April 2003, the Examiner rejected Applicant's Claim 11 on substantially the same art and reasoning as the Examiner rejected Applicant's Claim 1. *See Examiner's Office Action* p. 2 (24 April 2003). Claims 12-16 depend from Claim 11. Accordingly, mirroring the approach taken by the Examiner in his Office Action, Applicant herein respectfully asserts that Claims 11-16 are not rendered unpatentable by the art of record for at least the reasons why Claims 1-6 are not rendered unpatentable. Consequently, Applicant respectfully requests that the Examiner withdraw his rejections of Claims 11-16 for at least the reasons why Claims 1-6 are not rendered unpatentable by the art of record, and hold Claims 11-16 allowable.

**VI. Art of Record Does Not Establish Prima Facie Case of Anticipation of Claims 17, 18 and 19**

In his Office Action of 24 April 2003, the Examiner rejected Applicant's Claims 17 and 19 on substantially the same art and reasoning as the Examiner rejected Applicant's Claim 1. *See Examiner's Office Action* p. 2 (24 April 2003). The Examiner rejected Claim 18 on the logic of the rejection of Claim 1 plus additional alleged additional teachings from Agazzi. *See Examiner's Office Action* pp. 2-3 (24 April 2003). Accordingly, mirroring the approach taken by the Examiner in his Office Action, Applicant herein respectfully asserts that Claims 17, 18, and 19 are not rendered unpatentable by the art of record for at least the reasons why Claims 1-6 are not rendered unpatentable. Consequently, Applicant respectfully requests that the Examiner withdraw his rejections of Claims 17, 18 and 19 for at least the reasons why Claims 1-6 are not rendered unpatentable by the art of record, and hold Claims 17, 18 and 19 allowable.

**VII. Conclusion**

Overall, the cited references do not singly, or in any motivated combination and/or modification, teach or suggest the claimed features of the embodiments recited in the independent claims, and thus such claims are allowable. Because the remaining claims depend from allowable independent claims, and also because they include additional limitations, such claims are likewise allowable. If the undersigned attorney has overlooked a relevant teaching in

any of the references, the Examiner is requested to point out specifically where such teaching may be found.

In light of the above amendments and remarks, Applicant respectfully submits that all pending claims are allowable. Applicant, therefore, respectfully requests that the Examiner reconsider this application and timely allow all pending claims. The Examiner is encouraged to contact Mr. Cook by telephone to discuss the above and any other distinctions between the claims and the applied references, if desired. If the Examiner notes any informalities in the claims, he is encouraged to contact Mr. Cook by telephone to expediently correct such informalities.

Patentability now established, the remainder of the rejections beyond those expressly argued above are rendered moot, and hence Applicant does not explicitly address such moot rejections herein. The fact that the moot rejections are not addressed herein should not be taken as an admission of any sort, and Applicant reserves the right to contest the statements in such moot rejections at a later time (including but not limited to legal assertions, factual assertions, and statements of official notice), should such become necessary. In particular, the fact that Applicant has not addressed the express recitations of the independent claims beyond those of Independent Claim 1 should not be taken as an admission that the recitations of the remaining independent claims are substantively similar to those of Claim 1, for they are not by their express recitations. Rather, insofar as the Examiner has not seen fit to examine the express recitations of such claims, no prima facie case of the unpatentability of such claims has been established. Accordingly, as set forth in the MPEP, Applicant is entitled to a patent on all such claims.

The Commissioner is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Application No. 09/164,500  
Reply to Office Action dated 24 April 2003

All of the claims remaining in the application are now clearly allowable.  
Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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